## Surgery during the COVID-19 pandemic

The COVIDSurg Collaborative[1] highlights a concerningly high rate of postoperative pulmonary complications and high mortality in a large cohort of perioperative patients with known or highly suspected severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. Male patients at high risk (American Society of Anesthesiologists grades 3–5) and those patients undergoing emergency or major surgery fared the worst in terms of 30-day mortality. Cancer surgery was also linked to elevated mortality, although non-urgent procedures might have been postponed during the first COVID-19 pandemic peak, which could have altered the patient mix. The absence of a control group is understandable given the need for efficient reporting, but nonetheless, it limited our understanding of the data.

Looking forward to a post-pandemic world, COVID-19 will have become a part of past medical history for many patients. Some patients, especially those with acute respiratory distress syndrome (ARDS), will have received critical care and might be living with severe consequences of COVID-19, requiring long-term rehabilitation. These patients might no longer be infected by SARS-CoV-2, but their lives will still be affected by the virus. The impact that this pandemic will have on perioperative and postoperative risk remains unknown.

Long-term analyses of ARDS related to the severe acute respiratory syndrome coronavirus outbreak in early 2000, and the H1N1 influenza A outbreak in 2009, showed that individuals with ARDS who have lived through these outbreaks had impaired pulmonary function, with worse spirometry, diffusion capacity, functional performance, and radiographic appearance compared with matched controls.[2–4] Historical cohort studies of all-cause ARDS also described a sustained impaired pulmonary function in these individuals.[5]

The COVIDSurg Collaborative clearly show that surgery during acute SARS-CoV-2 infection generates excess risk. However, the question of when, or whether, this risk normalises again remains unclear. Answering this question will be key for safe planning of elective and emergency surgery in individuals who have had SARS-CoV-2 infection.

I declare no competing interests.

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